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REMARKS

Upon receipt of this response, the Examiner is respectfully requested to contact the undersigned representative of the Applicant to arrange a telephone interview concerning the inventive merits of this application.

With respect to the non-consideration of DE 101 10 981, DE 195 30 616 and EP 0 633 412, the Applicant notes that the corresponding U.S. equivalent references, namely, US 6,615,682 B2, US 5,724,856 and US 5,463,911, were each substantively considered by the Examiner and thus the Applicant is not providing copies of these corresponding foreign references for consideration by the Examiner at this time.

Claim 28 is rejected under 35 U.S.C. § 112, first paragraph, for the reasons noted in the official action. Rejected claim 28 is accordingly amended, by the above amendments, to address and overcome the raised 35 U.S.C. § 112, first paragraph, rejection concerning claim 28. If any further amendment to claim 28 is believed necessary, please contact the undersigned to discuss the same.

Claims 15-28 are then rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for the reasons noted in the official action. The rejected claims are accordingly amended, by the above claim amendments, and all of the presently pending claims are now believed to particularly point out and distinctly claim the subject matter regarded as the invention, thereby overcoming all of the raised § 112, second paragraph, rejections. The entered claim amendments are directed solely at overcoming the raised indefiniteness rejections and are not directed at distinguishing the present invention from the art of record in this case.

Lastly, claims 15-28 are rejected, under 35 U.S.C. § 102, as being anticipated in view of Doppling '967. The Applicant acknowledges and respectfully traverses the raised anticipatory rejection in view of the following remarks.

Doppling '967 relates to a gear shifting drum for a variable speed gearbox. This assembly includes a shaft 15 which supports a number of shifting forks 12a, 12b, 12c that are axially displaced along the shaft 15 for causing a gear shift. These shifting forks 12a, 12b, 12c each have a member 13 which engages a path 11a, 11b, 11c that is located about the

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circumference of a drum 2. These paths 11a, 11b, 11c have an undulating profile (see Figs. 2-5, for example) such that as the drum 2 rotates and because of the engagement between the paths 11a, 11b, 11c and the shifting forks 12a, 12b, 12c, the shifting forks 12a, 12b, 12c are will follow the profile of the paths 11a, 11b, 11c and be axially displaced along the shaft 15 causing engagement of the gears.

When a gear become engaged, the drum 2 and thus the shifting forks 12a, 12b, 12c are locked into place by a locking device 20, which includes a spring loaded locking member 21. The locking device 20 is fixedly mounted in a wall of the housing 7 in such a manner that the spring loaded locking member 21 slides along a surface of a lid 4 fixed to the end of the drum 2. The lid 4 has a number of impressions 24 and, as the drum 2 rotates and the spring loaded locking member 21 slides along the lid 4, the spring loaded locking member 21 will be biased into the impressions 24 thus preventing further rotation of the drum 2. When the drum 2 is locked and prevented from rotating, all of the shifting forks 12a, 12b, 12c are essentially locked at the same time. When the drum 2 rotates none of the shifting forks 12a, 12b, 12c are locked, they just do not move because profiles the paths 11a, 11b, 11c have not yet axially pushed/pulled them along the shaft 15.

In view of the above discussion of the applied art, it is respectfully submitted that the gear shifting mechanism of Doppling '967 is distinctly different from the presently claimed invention. For example, the shaft 15 which carries the shifting forks 12a, 12b, 12c is at least axially stationary—there is no need for axial movement of this shaft along its longitudinal axis. As seen in Fig. 1 of Doppling '967, the shaft 15 is axially fixed between two opposed walls of the housing 7 and thus does not move axially. The shaft 15 may also be fixed against rotation as well as against axial movement since rotation of the shaft 15 is not needed for operation of the invention. Doppling '967 teaches that "[a]ll gearshift forks 12a to 12c are axially displaceable on a gearbox shaft 15 which is installed... in the gearbox housing" (col. 4, lns. 20-22). There is no teaching anywhere in Doppling '967 that the shaft 15 is either axially or rotationally moveable since, as stated above, neither movement of the shaft is needed or required.

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The above aspects of Doppling '967 is directly contrary to the specific limitations of independent claim 15 which require the axially slidable shifting shaft (2) to support a plurality of shifting forks (8, 10, 12, 14) which are each axially slidable relative to the shifting shaft (2), when the shifting fork (8, 10, 12 or 14) is blocked, and is carried axially along with the shifting shaft (2), when the shifting fork (8, 10, 12, 14) is selected, for carrying out a desired shift." Further, the selection apparatus (28, 30, 32, 42, 44, 46) selects a desired one of the plurality of shifting forks (8, 10, 12, 14) which moves axially along with the shifting shaft (2) and carries out the desired shift.

In addition, claim 16 includes that axial displacement of the ring-shaped engagement units by way of the axial movement of the shifting shaft 2 such that the selected one of the shifting forks 12a, 12b, 12c carries out a shift. In addition, claims 26 and 27 include the limitations that a shaft actuator 60 and a transmission unit 58 provide and convert rotational movement into axial movement of the shifting shaft 2. The Applicant respectfully submits that none of these claimed features are in any way taught, suggested, disclosed or even hinted at by the applied Doppling '967 reference.

Second, as briefly discussed above, Doppling '967 specifically discloses and teaches that the locking device 20 is fixed in a wall and simultaneously locks all of the shifting forks 12a, 12b, 12c and prevents them from axially moving or conversely simultaneously unlocks all the shifting forks 12a, 12b, 12c thus allowing axial movement of all of them when they are individually biased by rotation of the drum 2 and the paths 11a, 11b, 11c. This aspect of Doppling '967 directly contrary to the presently claimed invention which recites the limitation at least one blocking apparatus 52 prevents axial movement of non-selected shifting forks 8, 10, 12, 14 while allowing axial movement of the selected one of the plurality of shifting forks 8, 10, 12, 14 with the shifting shaft 2.

Claim 18 includes that the at least one blocking apparatus includes rotatable blocking disks 52 that have a circumferential surface with segments 54 which permit axial movement of the ring-shaped engagement unit and thus allow axial movement of the selected shifting fork 8, 10, 12 or 14 with the shifting shaft 2, while the remaining area of the blocking disk 52 prevents axial movement of the respective ring-shaped engagement unit 28, 30 or 32 and thus

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axial movement of the respective shifting fork 8, 10, 12, 14 with the shifting shaft 2. Further, claim 22 recites that an area of the blocking disks 52 is a cutout 54 having teeth which mesh with teeth of the ring-shaped engagement units 28, 30. The Applicant respectfully submits that none of these claimed features are in any way taught, suggested, disclosed or even hinted at by Doppling '967. As such, the raised rejections in view of the applied should be withdrawn at this time.

New independent claim 29 recites the features of a "shifting device for shifting a transmission, the shifting device comprising: an axially slidable shifting shaft (2) supporting a plurality of shifting forks (8, 10, 12, 14), each of the shifting forks (8, 10, 12, 14) is axially slidable relative to the shifting shaft (2), when the shifting fork (8, 10, 12 or 14) is blocked, and is carried axially along with the shifting shaft (2), when the shifting fork (8, 10, 12, 14) is selected, for carrying out a desired shift; a selection apparatus (28, 30, 32, 42, 44, 46) for selecting a desired one of the plurality of shifting forks (8, 10, 12, 14) to move axially along with the shifting shaft (2) and carry out the desired shift; and a plurality blocking apparatus (52) for preventing axial movement of non-selected shifting forks (8, 10, 12, 14) while allowing axial movement of the selected desired one of the plurality of shifting forks (8, 10, 12, 14) along with the shifting shaft (2); wherein at least the plurality of shifting forks (8, 10, 12, 14) and other elements (2, 8, 10, 12, 14, 20, 22) for carrying out the shift are manufactured from a material which has a relatively high structural strength while the elements of the selection apparatus (28, 30, 32, 42, 44, 46) and the at least one blocking apparatus (52) are manufactured of a material which has a less structural strength than the elements (2, 8, 10, 12, 14, 20, 22) for carrying out the shift." Such features are believed to clearly and patentably distinguish the presently claimed invention from all of the art of record, including the applied art.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejections should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the

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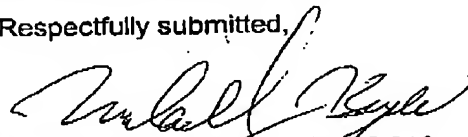
Doppling '967 reference, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



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